



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/696,551

10/30/2003

Rafael S. Correa

P66483US1

7834

136 7590 09/21/2005

JACOBSON HOLMAN PLLC
400 SEVENTH STREET N.W.
SUITE 600
WASHINGTON, DC 20004

EXAMINER

NGUYEN, SON T

ART UNIT

PAPER NUMBER

3643

DATE MAILED: 09/21/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/696,551	CORREA ET AL.	
	Examiner	Art Unit	
	Son T. Nguyen	3643	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10/30/03 & 6/30/05.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) 18-20 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>9/9/04</u> . | 6) <input type="checkbox"/> Other: _____ |

[Handwritten signature]

DETAILED ACTION

1. In reply to a restriction requirement, Applicant has elected invention I, claims 1-17 with traverse. Applicant argued that by amending the claims of invention II to state "automated", the restriction is overcome since the method cannot be performed by hand or any other method since it has to be automated. In response, by adding "automated" does not overcome the restriction requirement for the requirement has demonstrated that the method can be performed by other apparatus. The restriction required that the process as claimed **can be practiced by another materially different apparatus or by hand**. Even if automated was added, the process can still be **practiced by another materially different apparatus, such as injecting with a handheld needle**.

Therefore, the requirement is still deemed proper and is therefore made FINAL.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. **Claims 1,4 & 8** are rejected under 35 U.S.C. 102(b) as being anticipated by Hebrank (4903635).

For claim 1, Hebrank teaches an apparatus for delivering liquid comprising a body 51 defining a liquid pressure chamber (the bottom part of 51 in contact with liquid from the valve 50 and tube 47) and a pneumatic pressure chamber (the top part of 51 not in contact with liquid), the chambers are separated by a flexible member 53, wherein

Art Unit: 3643

the flexible member exerting pressure on a liquid when the liquid pressure chamber is filled with the liquid and pneumatic pressure is exerted on the flexible member through the pneumatic pressure chamber (inherent function of the pump 51); a plurality of liquid channels 47 in the body connecting the liquid pressure chamber to a plurality of delivery ports 42,43; a plurality of valves 50 associated with the liquid channels, each channel having at least one valve (see fig. 3); a prescribed volume of liquid delivered through the channels to and out of the delivery ports when the valves are opened.

For claim 4, Hebrank teaches the liquid pressure chamber and the pneumatic pressure chamber are elongated chambers (see fig. 4) with mating elongated openings (fig. 4, there are openings on the plate 46 for connecting ref. 51 with ref. 50) separated by the flexible member 53, and the liquid channels 47 are connected directly to the liquid pressure chamber 50 through a manifold 46 which also includes the delivery ports 42,43.

For claim 8, Hebrank teaches the delivery ports are formed integrally with the body and liquid channels are continuous in the body to an outlet of the delivery ports.

4. **Claims 11,12,16 & 17** are rejected under 35 U.S.C. 102(b) as being anticipated by Williams (6032612).

For claim 11, Williams teaches an apparatus for delivering liquid comprising a body defining a plurality of liquid channels 30,30,115,125 each connected to a separate delivery port (as shown in fig. 2); fluid dosage chambers 110,140,120 (also, col. 7, lines 50-55) associated with each liquid channel and having a specified volume determined by specified fluid dosage chamber volume; the liquid channels each having a first valve

Art Unit: 3643

111,141, or 121 in advance of fluid dosage chamber; and the liquid channels each having a second valve 111,141 or 121 between the fluid dosage chamber and the delivery port.

For claim 12, Williams teaches a reservoir 110,140, or 120 connected to the liquid channels.

For claim 16, William teaches the liquid channels are generally vertical and the first valves, the fluid dosage chambers and the second valves are spaced generally vertically in the body (see fig. 2).

For claim 17, William teaches the apparatus is associated with an egg injection machine and delivers a prescribed volume of vaccine uniformly to a plurality of injection needles 80 mounted in the machine, the liquid channels each associated with a single needle 80 (see fig. 2).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. **Claims 2 & 3** are rejected under 35 U.S.C. 103(a) as being unpatentable over Hebrank (as above) in view of Carter (1191061).

For claim 2, Hebrank teaches a fluid delivery manifold 44 with an elongated port 41 communicating with the plurality of liquid channels 47. However, Hebrank is silent about the pump being a heart-type valve pump. Carter teaches a heart-type valve pump

Art Unit: 3643

having a diaphragm or flexible member B. It would have been obvious to one having ordinary skill in the art at the time the invention was made to employ a heart-type valve pump as taught by Carter in place of the pump of Hebrank in order to provide a pump with a control amount of fluid flow.

For claim 3, Hebrank as modified by Carter (emphasis on Hebrank) further teaches a plurality of manifold modules assembled in side-by-side relation (see fig. 3).

7. **Claims 5-7,9,10** are rejected under 35 U.S.C. 103(a) as being unpatentable over Hebrank (as above).

For claim 5, Hebrank teaches a second pneumatic pressure chamber 41 . However, Hebrank teaches pneumatic pressure chamber but it is not certain if it is the kind with a low pressure chamber. In addition, Hebrank teaches valves but it is not certain if the valves are pneumatic valves. It would have been obvious to one having ordinary skill in the art at the time the invention was made to employ a low pressure chamber in the apparatus of Hebrank depending on how much pressure one wishes to exert on the eggs. In addition, It would have been obvious to one having ordinary skill in the art at the time the invention was made to employ pneumatic valves in the apparatus of Hebrank for such pneumatic valves are notoriously well known in the art, thus, to use that kind of valve would be one's choice depending on the desire type of device to elect for the intended use.

For claim 6, Hebrank teaches that the volume of liquid is controlled somehow but Hebrank does not specifically states that the volume of liquid delivered to the delivery ports is controlled by the amount of time the pneumatic delivery valves are opened by

Art Unit: 3643

release of high pressure from the high pressure pneumatic chamber. It would have been obvious to one having ordinary skill in the art at the time the invention was made to employ pneumatic valves in the apparatus of Hebrank for such pneumatic valves are notoriously well known in the art, thus, to use that kind of valve would be one's choice depending on the desire type of device to elect for the intended use. Hence, if employing the pneumatic valves, the volume of liquid delivered to the delivery ports is controlled by the amount of time the pneumatic delivery valves are opened by release of high pressure from the high pressure pneumatic chamber, for such is the function of the pneumatic valve.

For claim 7, it would have been obvious to one having ordinary skill in the art at the time the invention was made to employ pneumatic valves in the apparatus of Hebrank for such pneumatic valves are notoriously well known in the art, thus, to use that kind of valve would be one's choice depending on the desire type of device to elect for the intended use. Hence, if employing the pneumatic valves, the low pressure pneumatic pressure chamber exerts a head pressure on the liquid in the liquid pressure chamber when air pressure is exerted in the low pressure chamber to cause the liquid to flow through the liquid channels when the high pressure is released from the pneumatic delivery valves, for such is the function of the pneumatic valve.

For claim 9, Hebrank teaches one valve 50 in each liquid channel 47 and not a pair of valves in each liquid channel, one on each side of the liquid pressure chamber, and the prescribed volume of liquid is delivered through the channels to and out of the delivery ports when one valve is closed and the other valve is opened. It would have

Art Unit: 3643

been obvious to one having ordinary skill in the art at the time the invention was made to employ a pair of valves in Hebrank's apparatus depending on the amount of fluid control one wishes to have. In addition, it would have been obvious to one having ordinary skill in the art at the time the invention was made to locate the valves one on each side of the liquid pressure chamber, wherein the prescribed volume of liquid is delivered through the channels to and out of the delivery ports when one valve is closed and the other valve is opened in the apparatus of Hebrank depending on the amount of fluid control coming out of the pressure chamber one wishes to have.

For claim 10, Hebrank is silent about wherein the apparatus is reversible for delivering a prescribed volume of liquid out of the delivery ports and for withdrawing a prescribed volume of liquid into the delivery ports. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have the apparatus of Hebrank be reversible for delivering a prescribed volume of liquid out of the delivery ports and for withdrawing a prescribed volume of liquid into the delivery ports, since it has been held that a mere reversal of the essential working parts of a device involves only routine skill in the art. In re Einstein, 8 USPQ 167.

8. **Claims 13 & 14** are rejected under 35 U.S.C. 103(a) as being unpatentable over Williams (as above) in view of Carter (as above).

Williams is silent about a flexible diaphragm. As mentioned above, Carter teaches a pump comprising a flexible diaphragm which creates a vacuum to draw the fluid into a fluid dosage chamber when a valve is open and creates pressure on the liquid in the fluid dosage when a second valve is open, and the second valve is closed

Art Unit: 3643

when the liquid is drawn into the fluid dosage chamber and the first valve is closed when the liquid is pressured out of the fluid dosage chamber. It would have been obvious to one having ordinary skill in the art at the time the invention was made to employ a heart-type valve pump as taught by Carter in place of the pump of Williams in order to provide a pump with a control amount of fluid flow, hence, the diaphragm's function is to create a vacuum to draw the fluid into a fluid dosage chamber when a valve is open and creates pressure on the liquid in the fluid dosage when a second valve is open, and the second valve is closed when the liquid is drawn into the fluid dosage chamber and the first valve is closed when the liquid is pressured out of the fluid dosage chamber.

9. **Claim 15** is rejected under 35 U.S.C. 103(a) as being unpatentable over Williams (as above).


Williams is silent about wherein the apparatus is reversible to draw liquid out of multiple receptacles by drawing a vacuum in the fluid dosage chambers when the second valves are open and the first valves are closed. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have the apparatus of Williams be reversible to draw liquid out of multiple receptacles by drawing a vacuum in the fluid dosage chambers when the second valves are open and the first valves are closed, since it has been held that a mere reversal of the essential working parts of a device involves only routine skill in the art. In re Einstein, 8 USPQ 167.

Art Unit: 3643

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Son T. Nguyen whose telephone number is 571-272-6889. The examiner can normally be reached on Mon-Thu from 10:00am to 5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter M. Poon can be reached on 571-272-6891. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Son T. Nguyen
Primary Examiner
Art Unit 3643

stn